

DSC-199 – 10/695,369

Response to Office action March 7, 2006

Response submitted June 6, 2006

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claim 1 remains in the application. Claim 1 has been amended.

Claim 1 has once more been amended in an effort to clearly avoid any misunderstanding concerning the claim. The Examiner's arguments in support of the art rejection seem to suggest that the previously inserted, second "preliminarily dewatering the laundry" may have been misunderstood by the Examiner as a second discrete step. In fact, applicant's invention has one step of preliminary dewatering, namely, at the recited "first constant rotary speed."

We first address the claim rejection under 35 U.S.C. § 112, second paragraph. The Examiner pointed out that applicant's claim lacks a step of adding water and concluded that this represents a critical omission because this should be an essential step.

In the instant case, the method deals with rotary spin speed (see p. 3, line 9, "optimization of the rotary spin speed"). Spinning, of course, is effected towards the end of a washing procedure, after the laundry has been wetted and cleaned. That is, the first step of the claimed invention starts off after the laundry is already wet and has been driven through a wash cycle. The Examiner is respectfully urged to reconsider the rejection of claim 1 under 35 U.S.C. § 112.

DSC-199 – 10/695,369

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We now turn to the art rejection, in which the claim has once more been rejected as being obvious over Payne, U.S. Patent No. 5,161,393, under 35 U.S.C. § 103. We respectfully traverse.

We pointed out in the last response that Payne utilizes the acceleration ramp to obtain therefrom various physical properties and relationships, such as the mass moment of inertia, torque, acceleration, and energy consumption (friction energy and potential energy). These are then used to acquire information concerning the loading of the drum. It is clear that, all else being the same, Payne suffers from the "problem" that the laundry is subject to being dewatered during the measurement.

In claim terms, Payne does not show or suggest first driving the drum at a high speed and preliminarily dewatering the laundry, before the speed is reduced to a lower speed (during which some additional dewatering may or may not occur), before the speed is ramped up for a further measurement.

The rejection over Payne is very clearly in error and we must take issue with several of the technical conclusions reached by the Examiner. Initially, we agree with the statement that Payne determines the loading of a drum by measuring the moment of inertia and that Payne accelerates from one set speed to a higher set speed. Then the Examiner continues with the following:

"These 'set' speeds being predetermined and therefore having a measurement taken during the setting of the speeds." We are at a loss. Is it the Examiner's suggestion that any type of measurement would read on applicant's claim? And that

DSC-199 – 10/695,369

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the measurement may be taken at any time (e.g., when the machine is programmed before shipping out of the factory)? Applicant's claim calls for turning the drum at a constant speed and measuring an electrical power. These are, of course, two discrete steps. If one were to compare the process steps, then the "set speed" and its setting in Payne must be compared with applicant's "constant speed," and the reference thus lacks the measurement during the constant-speed driving. Besides, the reference certainly does not even remotely suggest measuring a power of the motor.

"Payne discloses measuring the torque of the motor . . . this would relate to the electrical friction power of the motor." Again, we are at a loss. Torque and power are physical parameters of a very different nature and the two are only marginally related in physical systems, including electrical/mechanical systems, such as the invention.

Torque is a "rotational force" which is defined as a cross product ($\tau = r \times F$) of a force vector F and a vector r from the point of rotation to the point of application of the force vector F .

Power is the amount of work done per unit time. **Electrical Power** is the amount of work done by an electric current within a defined unit of time. Power is expressed as a product: $P = IV$, where P is the power (in Watts), I is the current (in Amperes) and V is the potential (in Volts).

DSC-199 – 10/695,369

Response to Office action March 7, 2006

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It should be clear that the two parameters, torque and power, are not easily compared, that they represent very different concepts, and that they are acquired with very different measurements.

Claim 1 is not obvious over Payne under 35 U.S.C. § 103.

The second rejection under 35 U.S.C. § 103 is over applicant's older German patent application DE 44 31 846 ("Weinmann '846), as evidenced by applicant's description of the German disclosure found in applicant's later patent US 6,505,369 ("Weinman '369). The teachings of applicant's publications do not render obvious the claimed invention. To wit:

Weinmann '846 teaches dewatering laundry at a medium rotation speed compared to the high rotation speed, at which the measurement is performed. Because of limited dewatering at medium rotation speed, the laundry is further dewatered at the high rotation speed. As a consequence, the measurement is falsified due to a further loss of water. At the time of invention claimed herein, the problem of dewatering the laundry and its effect on measurement was not realized.

Weinmann '846 details five essential steps for a washing machine equipped with a universal motor (i.e., and all-current motor). The steps are:

1. Acceleration to a medium rotation speed;
2. Slowing down (passively) to a low rotation speed;
3. Acceleration to a high rotation speed and first measurement;

DSC-199 – 10/695,369

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Response submitted June 6, 2006

4. Slowing down (passively) to a low rotation speed;
5. Acceleration to a high rotation speed and second measurement.

Weinmann '369 (not prior art) describes a method that is only available for washing machines equipped with a poly-phase motor (i.e., a rotating field motor). Poly-phase motors are able to accelerate and as well to slow down actively. In contrast, a universal motor as described in Weinmann '846 – and in the present application – is able to accelerate actively, but has to slow down passively. This is, of course, the primary reason why Weinmann '369 cannot provide anything towards the claimed process. The steps are:

1. Acceleration to a high rotation speed;
2. Measurement during active slowing down;
3. Acceleration to a high rotation speed;
4. Measurement during passive slowing down.

The method of Weinmann '369 requires fewer steps than Weinmann '846, and it is applicable only to motors, which are able to slow down actively (e.g., poly-phase motors).

Reference is had to the detailed discussion of the differences between Weinmann '846 and the instantly claimed invention presented in the prior response. The discussion clearly points out the patentable differences. Claim 1 is not obvious over applicant's prior disclosure, Weinmann '846.

DSC-199 - 10/695,369

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In summary, neither Payne nor Weinmann '846, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, patentable over the art. In view of the foregoing, reconsideration and the allowance of claim 1 is solicited.

Respectfully submitted,



For Applicant(s)

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